

SOFIA: Opportunities in the Far-IR

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SOFIA-USRA

The Stratospheric Observatory for Infrared Astronomy - SOFIA - is an observatory with a 2.5 meter telescope in a Boeing 747SP aircraft, being developed by NASA and DLR (the German Aerospace Center). SOFIA will operate over a 20 year lifetime, flying into the stratosphere, allowing astronomical measurements covering the wavelength range from 0.3 μm to 1.6 mm, with an emphasis on the spectral regions inaccessible from the ground, such as the 6-8 μm and 30-300 μm spectral regions. SOFIA will support a diverse and changing complement of state-of-the-art science instruments with spectral resolutions ranging from 0.5 to 108. It will have a General Investigator Program with an annual proposal/observing cycle. This paper will overview the capabilities of SOFIA with its first-light instrument complement and give a projection of its capabilities over the observatory's life-time, 2005–2025.